Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, DC 20554

IN RE: DELETE, DELETE, DELETE	)	GN Docket 25-133

COMMENTS OF THE MOBILE & WIRELESS FORUM
ON THE FCC'S DELETE PROCEEDING

The Mobile & Wireless Forum (MWF)[1] has a decades-long history of working with the FCC – primarily with the Office of Engineering Technology and its Lab – in order to understand and address issues related to product testing and certification. For this reason, the MWF is well-positioned to comment and propose items related to product certification that are ripe for deletion. Nothing in our proposals, however, should be understood as a criticism or lack of respect for the laudatory efforts the OET Lab in performing its important responsibilities for testing and certification. To the contrary, the MWF has the utmost respect and admiration for the Lab's ongoing work, which we recognize as consistently performed diligently and with the intention to be both thorough and as timely as possible under the current procedures. We also recognize that the Lab makes every effort to review and revise procedures in order to be more effective and efficient. It is in that spirit of revision that MWF makes the comments below.

[1] The MWF is an international association of telecommunications equipment manufacturers with an interest in mobile and wireless communications. Originally established to support research into the health and safety of radio frequency electromagnetic fields, the MWF now works to address issues related to RF exposure measurements and product certification. That ongoing work proceeds globally. Further information on the MWF can be found on our website (www.mwfai.org).

The following comments are organized under the various testing and certifications procedures used by the Lab. Our intention for our comments is to begin with major proposals for deletion and then proceed to address "nitty-gritty" items that can be removed that will facilitate more streamlined and efficient certifications.

I. Deletion of the Outmoded SAR Standard

The RF exposure standard used by the FCC has been derived, in large part, from the early SAR standard developed by the Institute of Electrical and Electronics Engineers (IEEE).[2] There is no question but that the FCC SAR standard in current use, developed in 1991and adopted by the FCC in 1995[3] is outmoded. It was superseded in both 2005 and again in 2019 as the standard was revised and updated to reflect the latest developments in the research on radio frequencies.[4] Because the FCC standard has lagged behind the ongoing developments in the science, product development under a more scientifically based standard also has lagged.

The consequence of using the older standard is that many more testing issues arise – testing issues that are unnecessary and result in longer lead times for devices. And, connectivity will suffer where devices are operating at the margins of a signal.

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[2] Institute of Electrical and Electronics Engineers, Inc., Standard for Safety Levels with Respect to Human Exposure to Electric, Magnetic, and Electromagnetic Fields, 0 Hz to 300 GHz, IEEE Std C95.1 (1991).

[3] FCC first adopted the 1991 IEEE standard in its 1995 regulations; FCC did not update the standard when IEEE issued its newly revised standard in 2005. Then, in 2019, the IEEE updated the standard again and adopted a more science-based RF exposure limit based on 10 gram averaging. The FCC again declined to update the standard to reflect current science. *See* note 4, *infra*.

[4] It is undisputed that the updated standards are more science based. As IEEE explained in Annex A of IEEE Std C95.1-2005:

> *IEEE Std C95.1-1991 (and the 1999 Edition) was based on research published before 1986. Research has continued since 1986; a reevaluation of the RF biological effects database was therefore performed. A new risk assessment based on the results of this reevaluation was undertaken. Attempts were made to include and to evaluate all of the relevant literature in the database.*

For these reasons, the older standard should be deleted and replaced with the latest IEEE standard.

II. Deletion of Stale PAG Procedures

The FCC Lab has set out the procedure for Pre-Approval Guidance (PAG) procedures in KDB Publication 388624-D02. It involves Telecommunication Certification Bodies (TCBs) requesting guidance from the FCC before approving equipment for certain categories. The Lab's stated objective is to only use the PAG process "to address compliance for certain technologies that have not reached a sufficiently mature stage." However, the PAG process has no defined duration and in some cases goes on long after the technology is mature. Specific examples are set out in the footnote below.[5] They demonstrate that a duration limit should be imposed, after which the requirement should be deleted.

Accordingly, MWF proposes that PAG be deleted as a process after it has been used for a technology for 18 months. After 18 months the review authority for Data Referencing can be delegated to a TCB.

III. Deletion of Redundant/Unnecessary Testing and Reporting

Over time, certain procedures required by the FCC Lab for product certification have either taken on a redundancy or become unnecessary. Those procedures should be reviewed and the redundant requirements deleted. Specific instances are set out below.

[5] *E.g.,* testing using the TAS algorithm approved by the FCC has required a PAG for over 2 years despite the considerable experience TCBs have gained with the technology. The PAG should be deleted. Similarly, with regard to Dynamic Antenna Tuning, the methodology has become widespread and the method of Dynamic Antenna Tuning has been standardized by chipset manufacturers. Therefore, the PAG requirement should be deleted.

A. Deletion of SAR Testing at the Head in the "Tilt" Position

SAR testing in the tilt position at the head came about due to concern that some users would tilt the phone's external monopole antenna toward the head and, therefore, the tilt position would constitute the "worst case" for exposure.[6] External whip antennas are now a thing of the past for most consumer devices; there are no phones being made with such antennas. For this reason, the tilt position testing requirement is outmoded. In fact, for phones with antennas in the bottom of the device it the best case position rather than worst case. In any event, the test should be deleted as unnecessary and outmoded unless the external monopole antenna makes a return.

B. Deletion of Redundant Tests

In cases where the antenna path is the same, redundant testing can be avoided if conducted power for different technologies (2G, 3G, 4G & 5G) is measured and a scaling factor used. That factor will be based on the conducted power and used to predict the additional frequency bands that share the antenna path. For example, LTE B25 and 5G NR n25 are the same frequency bands. If the antenna & RF paths are the same, the data can be reused or scaled according to the conducted power.

C. Deletion of Reporting Requirements Where There Is No Realistic Probability of Non-Compliance

SAR reporting has been an FCC requirement since 1996.[7] At the present point in time, therefore, a considerable amount of experience has been gained and it is well known that many

[6] See, e.g., FCC Lab's TCB Training Slides, *Introduction to Evaluating Compliance/SAR Review of Handset Transmitters for Equipment Approval*, at slide 72 (2005).
[7] Note 3, *supra*.

device configurations do not create a meaningful threat of non-compliance. Such circumstances present an opportunity for deleting requirements for unnecessary testing and reporting.

1. Deletion of reporting where SAR is below a level where non-compliance is a reasonable expectation.

Where SAR levels for consumer devices are 0.8 W/kg or lower there is no meaningful threat of non-compliance with the SAR limits. Where devices subject to occupational limits are involved, the halved limit of 4 W/kg presents a level where similar expectations of compliance apply. The requirement of creating and submitting a full SAR report for such products is, therefore, unnecessarily burdensome. The better course would be to allow manufacturers to declare the product as compliant and rely on the existing post-market surveillance procedures as a check on the reliability of such declarations. In short, the requirement for SAR reports for products at or below 0.8 W/kg (or 4 W/kg for devices for occupational use) should be deleted.

2. Deletion of unnecessary testing where there is no threat of non-compliance with the SAR limit.

Current rules require a manufacturer to submit tests and reports for a new FCC ID and product certification where a product change increases maximum output power of the device (either conducted or radiated) but it still fully complies with FCC regulations.[8] Instead of a new grant, a Class II permissive change could be allowed and the extra burden of a new grant avoided. MWF, therefore, proposes that the regulation be modified to delete the prohibition against declaring a permissive change where a power increase is made.

[8] 47 CFR §2.1043. *See also* KDB 178919 D01 v06, note 3.

D. Deletion of Restrictions on the Use of Vector Based Measurement Systems (Fast SAR)

In the event that the proposal above to delete SAR reporting where SAR is at 0.8 W/kg or lower (or the occupational level for such devices) is not accepted, MWF has an alternate proposal regarding Vector Based Measurement Systems (VBMS) for SAR (i.e., "Fast SAR"). Fast SAR has been shown to be sufficiently reliable so as to assure compliance provided the measurement is within a reasonable margin below the limit – such as levels of 0.8 W/kg or lower. Consequently, the FCC Lab's restriction against the use of Fast SAR should be deleted where the measurement is below the SAR limit by fifty percent (0.8W/kg or 4W/kg) .

IV. Deletion of Outmoded Labeling Requirements

The primary purpose of all labels is to provide the user with the information necessary to use a product appropriately. MWF supports this purpose absolutely. Moreover, MWF believes that the combination of current QR code technology with comprehensive product information achieves this purpose far better than outmoded requirements for packaging or product labels. For this reason, MWF urges that restrictions on this approach be deleted as soon as possible.

A. Deletion of FCC's QR Code Proscription

The FCC reviewed the use of QR codes for labeling purposes in its First Report & Order of 2017.[9] It states, in part, that FCC "will not allow the use of QR codes or RFID tags in lieu of

[9] First Report & Order, ET Docket No. 15-170 (July 14, 2017)("We will not allow the use of QR codes or RFID tags in lieu of on-screen display of information of such features because doing so would be inconsistent with the objectives of the labeling information requirement.").

on-screen display of information…."[10] Although the FCC itself has eroded this language through the promulgation of its cybersecurity initiative,[11] as well as its limited allowance for HAC information,[12] the general proscription has not been rescinded. Accordingly, this position needs to be deleted. The passage of time has rendered it outmoded.

B. Deletion of HAC Labeling Requirements for Packaging

In the Report & Order concerning hearing aid compatibility, the Commission gave limited permission for the use of QR codes and allowed them to give information within a package on the condition that a website address is also provided.[13] Nevertheless, the Commission continued to prohibit QR code use for external packaging labels, stating that "we will not allow handset manufacturers and service providers to deliver this information to consumers using digital labeling technology."[14] This restriction is unwarranted in light of the clear usefulness of QR codes to convey complicated consumer information. It is exactly that type of consumer information that needs to be disseminated to HAC consumers in order to explain the information FCC is requiring, such as "the handset's actual conversational gain with and without a hearing aid if certified using a technical standard with volume control requirements."[15]

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[10] *Id.*

[11] *In the Matter of Protecting the Nation's Communications Systems from Cybersecurity Threats*, Declaratory Ruling and Notice of Proposed Rulemaking, PS Docket No. 22-329 (January 16, 2025**).**

[12] *In the Matter of Achieving 100% Wireless Handset Model Hearing Aid Compatibility,* Report and Order, WT Docket No. 23-388, FCC 24-112, (Oct. 18, 2024).

[13] *Id.* at ¶103 ("Handset manufacturers . . . must provide consumers with both a QR code and the related website address. . . .").

[14] *Id.* at ¶104.

[15] 47 CFR §20.19(f)(1). *See also* 2024 FCC Lab Slides to TCB Workshop mandating the packaging labeling.

The mandated information regarding conversational gain that FCC is requiring to be printed on packages include technical details about gain – as measured in decibels. The problem is that this approach confronts the user with logarithmic decibel progressions that are likely to be unfamiliar if not arcane values to users who are not engineers. This information, therefore, constitutes the precise type of information best suited to use of a QR code so a consumer can get a sufficiently robust explanation of the decibel progressions rather than be confronted with a set of confusing numbers.

For the above reasons, the prohibition against the use of QR codes on packaging (or anywhere else) should be deleted.

V. Conclusion

MWF hereby submits the foregoing instances to the FCC as ripe for deletion.

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Respectfully submitted,

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